

**Marked Up Version Of The Pending Claims under 37 C.F.R. 1.121(c)(I)(ii):**

86-99, 104-107, 109-123, 125-130 are as follows and in accordance with 37 C.E.R. 1.121(c), by which the Applicant submits the following marked up version, wherein the markings are shown by brackets (for deleted matter) and/or underlining (for added matter):

I claim:

86. (Currently Amended) A tuning apparatus for a stringed musical instrument comprising:

a body and

a neck extending outwardly from said body,

a plurality of strings extending from the body to the neck,

a first critical point for each of said strings on the neck,

a second critical point for each of the strings on the body comprising a bridge element,

an anchoring point for one end of the strings on the neck,

the bridge element further comprising:

an anchoring point for another end of the strings, and

[having an element to receive at least one musical instrument string, the element comprising:]

an alternate string anchoring point for each string.

87. (Currently Amended) The apparatus [bridge tailpiece] of claim 86, wherein the apparatus [bridge tailpiece] further comprises:

a tremolo.

88. (Currently Amended) The apparatus [bridge tailpiece] of claim 86, wherein the apparatus [bridge tailpiece] further comprises:

a fulcrum tremolo.

89. (Currently Amended) A [bridge tailpiece with] tuning apparatus for a stringed musical instrument comprising:

a body and

a neck extending outwardly from said body,

a plurality of strings extending from the body to the neck,

a first critical point for each of said strings on the neck,

a second critical point for each of the strings on the body

the apparatus further comprising:

a base comprising a forward end and a rearward end and upper portion and a lower portion, comprising:

[an upper portion comprising:

a base;]

a [the] bridge element connected to the base, the bridge element located closer to the forward end forming a second critical point; and

a first portion connected to the base and located in the rearward end forming an alternate string anchoring point closer to the lower portion than the second critical point, and wherein the lower portion being attached to the upper portion and the lower portion comprises:

a second portion that is transverse to the alternate string anchoring point;

and a first string anchoring point.

90. (Currently Amended) The apparatus [bridge tailpiece] of claim 89, wherein the apparatus [bridge tailpiece] further comprises:  
a fulcrum tremolo.

91. (Currently Amended) The apparatus [bridge tailpiece] of claim 89, wherein the  
upper portion further comprises:

a string opening located between the first anchoring point and the second critical point, and

wherein the second portion further comprises:

a member with a string passageway connected to the second anchoring point having an axis, the axis being aligned to the string opening in the upper portion.

92. (Currently Amended) The apparatus [bridge tailpiece] of claim 91, wherein the apparatus [bridge tailpiece] further comprises:  
a fulcrum tremolo.

93. (Currently Amended) A stringed musical instrument comprising:  
a body having a surface;  
a bridge element attached to the body; [and] comprising  
a tailpiece element attached to the surface of the body, the tailpiece comprising:  
a first portion having a rearward surface having a string anchoring point formed therein, and located above the surface of the body; and  
a second portion that is transverse to the first portion, and extends through at least a portion of the body, the second portion comprising:  
a first end that connects the second portion to the first portion;  
a second end, the second end having an alternate string anchoring point and formed therein below the surface of the body; and  
an elongated passageway that extends through the second portion from the first end to the second end, along a longitudinal axis of the second portion, forming at least one opening on each end.

94. (Previously Presented) An apparatus comprising:  
a body;  
a fulcrum tremolo;

a biasing element comprising a first end connected to the fulcrum tremolo  
and a second end connected to the body; and  
at least one biasing element holder; and  
a singular apparatus connected to the fulcrum tremolo, the singular  
apparatus  
comprising:  
a thumbwheel portion operable to position the at least one biasing  
element holder,  
wherein rotation of the thumbwheel portion adjusts the equilibrium point  
between the tension of the strings and the tension of the biasing  
element to adjust initial position.

95. (Previously Presented) The apparatus of claim 94, wherein the singular  
apparatus further comprises:  
a U-shaped spring.

96. (Previously Presented) An apparatus for a stringed musical instrument  
comprising: a body; and  
a fulcrum tremolo comprising:  
at least one spring comprising a first end and a second end, the first  
end and the second end positioned opposite from each other on the at  
least one spring, the at least one spring positioned between the  
fulcrum tremolo and the body;  
a spring holder connected to the biasing element;  
a singular apparatus connected to the at least one spring comprising a  
thumbwheel and  
a threaded elongated portion, the threaded elongated portion threadedly  
connected to the singular apparatus and the threaded elongated  
portion threadedly connected to the singular apparatus,  
wherein rotation of the thumbwheel adjusts the equilibrium point between  
the tension of the strings and the tension of the at least one spring

and thereby adjusting the initial position of a fulcrum tremolo.

97. (Previously Presented) The apparatus of claim 96, wherein the singular apparatus further comprises:  
a secondary spring holder being threadedly engaged with the threaded elongated portion,  
and  
wherein the fulcrum tremolo being positioned between the thumbwheel  
and the secondary spring holder.

98. (Original) The apparatus of claim 96, wherein the spring holder being positioned between the thumbwheel and the biasing element.

99. (Original) The apparatus of claim 98, further comprising a secondary spring holder  
connected to the biasing element,  
wherein the thumbwheel further comprises a second elongated threaded portion,  
wherein the fulcrum tremolo further comprises a threaded opening, and wherein the thumbwheel is positioned between the secondary spring holder and the threaded opening.

100. Cancelled

101. Cancelled

102. Cancelled

103. Cancelled

104. (Currently Amended) A fulcrum tremolo comprising an intonation module with a forward portion and a rearward portion:  
the intonation module comprising:  
a base;

a bridge element connected to the base, the bridge element located closer to the forward end forming a second critical point; and wherein the rearward portion forms a string anchoring point closer to the base than the second critical point; and wherein the string anchoring point is located a [critical] distance from the second critical point operable to render a string as approximately inextensible between the anchoring point and the second critical point.

105. (Previously Presented) The fulcrum tremolo of claim 104, wherein the intonation module further comprises:

a macro tuner.

106. (Currently Amended) The fulcrum tremolo of claim 104, wherein the [critical] distance is at least 0.25 inch.

107. (Currently Amended) The fulcrum tremolo of claim 104, wherein the [critical] distance is about equal to the length of conventional musical instrument string wrapping.

108. Cancelled

109. (Previously Presented) The fulcrum tremolo of claim 104, further comprising:

a base plate attached to the intonation module, the base plate comprising a string hole.

110. (Previously Presented) A fulcrum tremolo with a forward end and a rearward end, the fulcrum tremolo comprising:

a base plate comprising a string hole,

a spring holder that is transverse to the base plate comprising:

a first string anchoring point; and

a string passageway having an axis wherein a longitudinal axis of the string passageway aligns with the string hole;  
an intonation module attached to the spring holder comprising:  
a base;  
a bridge element connected to the base, the bridge element located closer to the forward end than the rearward end and forming a second critical point; and  
wherein the rearward portion forms an alternate string anchoring point closer to the base than the second critical point; and  
wherein the alternate string anchoring point is located a [critical] distance from the second critical point so that a string is rendered essentially inextensible between the alternate string anchoring point and the second critical point.

111. (Original) The fulcrum tremolo of claim 110, wherein the intonation module further comprises:

a macro tuner.

112. (Previously Amended) A tremolo for a stringed musical instrument comprising: at least one bridge element; and

a unitary component that is a single piece of bent material comprising:  
a base plate being approximately planar, comprising:

a forward edge, a portion of the forward edge being a pivot and forming a pivot axis, and

an end opposite of the forward edge;

the opposite end of the forward edge of the base plate comprising:

a bend in the unitary component;

a transverse portion comprising:

at least one spring socket to receive an end of at least one biasing element; and

wherein the bend transitions the base plate to the transverse portion, and  
wherein the bend and the transverse portion are approximately parallel to  
the pivot axis, and  
wherein the unitary component is connected to the at least one bridge  
element.

113. (Previously Presented) The tremolo of claim 112, wherein the transverse  
portion further comprises:  
at least one string socket.

114. (Previously Presented) A fulcrum tremolo for a stringed musical  
instrument  
comprising:

a unitary component that is a single piece of bent material  
comprising:  
a base plate being approximately planar, comprising:  
a forward edge, a portion of the forward edge being a pivot and  
forming a pivot axis, and  
an end opposite of the forward edge;  
a first bend in the unitary component at an opposite end of the  
forward  
edge of the base plate;  
and a transverse portion comprising:  
at least one spring socket to receive an end of at least one biasing  
element,  
wherein the first bend transitions the base plate to the transverse  
portion,  
and  
wherein the first bend and the transverse portion are approximately  
parallel to the pivot axis,  
at least one bridge element connected to the unitary component.



115.

(Original) The fulcrum tremolo of claim 114, wherein the first bend further comprises:  
a reinforcement.

116. (Previously Presented) The fulcrum tremolo of claim 114, wherein the transverse portion further comprises:  
at least one string socket to receive an end of a string.

117. (Previously Presented) The fulcrum tremolo of claim 116, wherein the base plate further comprises at least one string hole, and wherein the transverse portion further comprises:
- an upper portion;
  - a lower portion comprising at least one string passageway, each of the at least one string passageway is aligned with at least one of the least one string hole in the base plate; and
  - at least one second bend that transitions from the upper portion to the lower portion,
- wherein the lower portion is approximately parallel to the pivot axis.
118. (Previously Presented) The fulcrum tremolo of claim 116, wherein the base plate further comprises:
- at least one tier for displacing the at least one bridge element from the base plate.
119. (Original) The fulcrum tremolo of claim 114, wherein the transverse portion further comprises:
- the at least one string socket
120. (Original) The fulcrum tremolo of claim 114, wherein the pivot further comprises: a pivot having a knife edge.
121. (Original) The fulcrum tremolo of claim 114, wherein the pivot further comprises: a pivot having a beveled edge.
122. (Previously Presented) The fulcrum tremolo of claim 114, wherein the pivot further comprises:
- a least a portion of a ball bearing surface.

123. (Original) The fulcrum tremolo of claim 114, wherein the pivot further comprises: at least a portion of a ball bearing surface; and  
at least a portion of a shaft.
124. Cancelled
125. (Previously Presented) A fulcrum tremolo for a stringed musical instrument comprising:  
at least one bridge element; and  
a unitary component that is a single piece of bent material comprising:  
a base plate being approximately planar, comprising:  
a pivot forming a pivot axis;  
at least one bend in the base plate;  
at least one additional portion formed to receive at least a portion  
of at least one bearing assembly,  
wherein the at least one bend and the at least one additional portion have  
an axis approximately parallel to the pivot axis, and  
wherein the unitary component is connected to the at least one bridge  
element.

126. (Currently Amended) A fulcrum tremolo for a stringed musical instrument comprising:

- at least one bridge element; and

- a base plate being approximately planar, comprising:

- a forward edge, and;

- at least one additional portion formed to receive at least a portion of at least one bearing assembly;

- the at least one bearing assembly, comprising:

- at least a portion of a shaft, at least one housing,

- at least a portion of a ball bearing surface, and at least one annular flange[.]

wherein the at least one annular flange spaces the at least a portion of at least one bearing assembly away from the base plate.

127. (Previously Presented) A bridge-tailpiece for a stringed musical instrument

comprising:

- a fulcrum tremolo, the fulcrum tremolo further comprising:

- an element to receive at least one musical instrument string, the element comprising:

- a first string anchoring point for each string; and

- an alternate string anchoring point for each string;

and

- an intonation module with a forward portion and a rearward portion:

- the intonation module comprising:

- a base;

- a bridge element connected to the base, the bridge element located closer to the forward end forming a second critical point; and

wherein the rearward portion forms a string anchoring point closer to the

base than the second critical point; and  
wherein the string anchoring point is located a critical distance from the second critical point operable to render a string as approximately inextensible between the anchoring point and the second critical point;

and

a biasing element comprising a first end connected to the fulcrum tremolo and a second end connected to the body; and  
at least one biasing element holder; and  
a singular apparatus connected to the fulcrum tremolo, the singular apparatus comprising:  
a thumbwheel portion operable to position the at least one biasing element holder,  
wherein rotation of the thumbwheel portion adjusts the equilibrium point between the tension of the strings and the tension of the biasing element to adjust initial position;

and

an unitary component that is a single piece of bent material comprising:  
a base plate being approximately planar, comprising:  
a forward edge, a portion of the forward edge being a pivot and forming a pivot axis, and  
an end opposite of the forward edge;  
the opposite end of the forward edge of the base plate comprising:  
a first bend in the unitary component;  
and a transverse portion comprising:  
at least one spring socket to receive an end of at least one biasing element,  
wherein the first bend transitions the base plate to the transverse portion,

and  
wherein the first bend and the transverse portion are approximately  
parallel to the pivot axis:  
the unitary component further comprising:  
at least one additional portion formed to receive at least a portion  
of at least one bearing assembly,  
wherein the at least one bend and the at least one additional portion have  
an axis approximately parallel to the pivot axis, and  
wherein the unitary component is connected to the at least one bridge  
element.

#### New Claims

128 (New) A fulcrum tremolo for a stringed musical instrument comprising a body and a neck, a plurality of strings extending from the body to the neck, a nut for supporting the strings on the neck forming a first critical point for each string wherein the fulcrum tremolo comprises a macro tuner:

the macro tuner having a forward end closer the nut and a rearward end further the nut, the macro tuner comprising:

a base;

a bridge element connected to the base located closer the forward end forming a second critical point;

an elongated portion slideably connected to the base;

the elongated portion further comprising a string holder element,  
an adjustment screw connected to the base operable to position the elongated portion;

the elongated member, the adjustment screw and the string holder located on the opposite side of the second critical point from the first critical point, wherein threading the adjustment screw is operable to position the string holder element to change tension of strings.

128. (New) The fulcrum tremolo of claim 129, wherein the base further comprises a restricted portion,

the string holder further comprises a string anchor, and

the elongated member further comprises:

a clamping portion closer to the second critical point; and

a string passageway connecting the string anchor to the

clamping portion;

an annular flange positioned between the clamping portion and the string anchor, and

wherein the annular flange is in varying contact with the restricted portion;

wherein threading the adjustment screw to tension a string is operable to clamp the string between the second critical point and the string anchor.

(New) 130 A macro tuner having a forward end and a rearward end, the macro tuner comprising:

a base;

a bridge element connected to the base for supporting a string located closer the forward end forming a second critical point;

an elongated member slideably connected to the base, the elongated member located between the forward and rearward end,

an adjustment screw connected to the base operable to position the elongated member;

the adjustment screw located closer the rearward end and

a string holder connected to the base located between the second critical point and the rearward end,

wherein threading the adjustment screw is operable to position the string holder to change tension of strings,

wherein the macro tuner is located on an apparatus consisting of a fulcrum tremolo of an stringed musical instrument.

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**REQUEST FOR NOTICE OF ALLOWANCE**

Applicant requests a Notice of Allowance for claims 86-99, 104-107, 109-123, 125-130 which are pending in this application..

**CONCLUSION**

All pending Claims 86-99, 104-107, 109-123, 125-130 are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the subject application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned applicant before issuing a subsequent Action.

Respectfully submitted,

Geoffrey Lee McCabe